

U.S. Patent Application No. 10/076,209
Amendment dated December 17, 2003
Reply to Office Action dated August 1, 2003

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

LISTING OF CLAIMS:

Claim 1 (currently amended): A drilling fluid or mud comprising at least one alkali metal formate or monovalent carboxylic salt and at least one sealing or fluid loss additive and at least one hydrocarbon-based fluid.

Claim 2 (currently amended): A drilling fluid comprising at least one alkali metal formate and at least one emulsifier, and at least one sealing or fluid loss additive and at least one hydrocarbon-based fluid.

Claim 3 (currently amended): The completion fluid of claim 2, further comprising at least one ~~hydrocarbon-based fluid~~ or synthetic mud fluid.

Claim 4 (original): The drilling fluid of claim 2, wherein said alkali metal formate comprises potassium formate.

Claim 5 (original): The drilling fluid of claim 2, wherein said drilling fluid further comprises at least one acid.

Claim 6 (currently amended): The drilling fluid of claim 2, further comprising at least one solid weighting material, ~~at least one fluid loss additive~~, at least one wetting agent, at least one organo clay, at least one filtration control agent, at least one polymer, or combinations thereof.

Claim 7 (original): The drilling fluid of claim 2, wherein said emulsifier comprises a dimer trimer acid, imadazoline, tall oil, or combinations thereof.

Claim 8 (currently amended): The drilling fluid of claim ~~3~~ 2, wherein said

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hydrocarbon-based fluid comprises diesel oil.

Claim 9 (currently amended): The drilling fluid of claim 3 ~~2~~, wherein said hydrocarbon-based fluid comprises at least one synthetic oil.

Claim 10 (original): The drilling fluid of claim 5, wherein said acid is formic acid or an acid derivative thereof.

Claim 11 (original): The drilling fluid of claim 1, wherein said alkali metal formate is less than fully saturated in said drilling fluid.

Claim 12 (original): A method to drill a well comprising drilling said well in the presence of the drilling fluid of claim 1.

Claim 13 (original): A method to drill a well comprising drilling said well in the presence of the drilling fluid of claim 2.

Claim 14 (original): A method to reduce the solids content in a drilling fluid comprising substituting at least a portion of said solid weighting material with an aqueous solution comprising at least one alkali metal formate.

Claim 15 (currently amended): A drilling fluid or mud made by mixing at least one alkali metal formate and at least one emulsifier and at least one sealing or fluid loss additive and at least one hydrocarbon-based fluid.

Claim 16 (canceled)

Claim 17 (new): The drilling fluid or mud of claim 1, wherein said drilling fluid or mud is a mixture of hydrocarbon-based fluid and aqueous-based solution present at a ratio of 65% by volume hydrocarbon fluid: 35% aqueous-based solution to 1% by volume hydrocarbon fluid: 99% by volume aqueous based solution.

Claim 18 (new): The drilling fluid of claim 2, wherein said drilling fluid is a

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hydrocarbon-water emulsion.

Claim 19 (new): The drilling fluid of claim 2, wherein said drilling fluid is a mixture of hydrocarbon-based fluid and aqueous-based solution present at a ratio of 65% by volume hydrocarbon fluid: 35% aqueous-based solution to 1% by volume hydrocarbon fluid: 99% by volume aqueous based solution.

Claim 20 (new): The drilling fluid or mud of claim 1, wherein no solid weighting material is present.

Claim 21 (new): The drilling fluid of claim 2, wherein no solid weighting material is present.

Claim 22 (new): The drilling fluid or mud of claim 1, wherein the at least one alkali metal formate or monovalent carboxylic acid is partially or totally emulsified into the hydrocarbon-based fluid.

Claim 23 (new): The drilling fluid or mud of claim 1, wherein the at least one hydrocarbon-based fluid is partially or totally emulsified into the at least one alkali metal formate or monovalent carboxylic salt.

Claim 24 (new): The drilling fluid of claim 2, wherein the at least one alkali metal formate or monovalent carboxylic acid is partially or totally emulsified into the hydrocarbon-based fluid.

Claim 25 (new): The drilling fluid of claim 2, wherein the at least one hydrocarbon-based fluid is partially or totally emulsified into the at least one alkali metal formate or monovalent carboxylic salt.